The CRASH[1]-model for Psychosocial Crisis Intervention: from Peer Driven Early Intervention to Professional Care and Therapeutic Action with Military and Emergency Services Personnel

The Prevention of Psychological Trauma in Fire, Rescue, Police & Military Personnel

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What makes you, breaks you and ... what breaks you, makes you!

INTRODUCTION

The last decade there has been a constant increase in the attention for the psychosocial consequences of large-scale accidents and disasters throughout the world and the various domains of victimology, crisis psychology and psychotraumatology have received more and more attention from both mental health professionals and the authorities or top-level management. In a lot of cases, this kind of attention was the direct result from the militant actions coming from people working at the coalface in emergency response services and who damaged themselves – or saw their colleagues get hurt - by just doing their job which everybody thought – very simplistically – to be easy; after all, didn't they make the choice to be at work in that kind of environment. In the meanwhile, in most basic training courses for fire, rescue, emergency, police and military services personnel, there has been a considerable amount of effort to introduce the various concepts of stress and trauma specific to the field of crisis intervention and disaster response.

Nevertheless, there stills seems to be a lot of confusion with respect to the potentially traumatizing impacts of emergency response, on the one hand, and the necessary help and support the different categories of victims should get, on the other hand.

In Europe, and more specifically in Belgium, it is only since the large scale accidents and disasters in the beginning of the nineties, that several disciplines were organized and co-coordinated in one broader operational framework, in order to assure more than necessary psychosocial support, both as an immediate response to disaster and a psychosocial follow-up on the long term. A big step in the whole process was the creation of a post-graduate course – as a joint effort between several organizations (universities) and the Belgian Armed Forces – in *Disaster Medicine and Disaster Response* in which the key personnel of the several

[1] **CRASH**: *Calamiteiten en Rampen Aanpak bij Slachtoffers en Hulpverleners*

disciplines working together at grassroots level were trained to use the same psychosocial framework and the same concepts in times of crisis. The following step was the development of joint regional psychosocial disaster plans for hospitals, industry plants and risk areas, and the organization of special follow-up training for disaster response networks of doctors, nurses, fire & rescue personnel, psychologists, psychiatrists, social workers, clergy, etc. Yet, some problems still remain unsolved, since successful psychosocial intervention in crisis situations and disasters also requests a successful integration of the intervening disciplines, resulting in a common conceptual basis with respect to the immediate and post-immediate psychosocial needs of stricken trauma-victims.
In this paper I would like to discuss the possibilities for psychotrauma support, from the immediate post-impact psychosocial intervention to the long-term professional trauma therapy, reviewing respectively: 1) the potentially traumatizing core of emotionally disturbing events; 2) the impact of this kind of events on the different categories of stricken victims; 3) the different support activities one can expect from peers, co-coordinated by peer support officers and supervised by mental health professionals; and, finally, 4) the transition from peer support to professional aid (including the different stages of the trauma therapy).

First, I will highlight the potentially traumatizing or *traumatogenic* impact of emotionally disturbing events, being essentially confrontations with death and not, as seen in the widespread used concept *critical incident*, a mix of experiences in which both threat, grief, anxiety, losses, and so many other basic emotions are intertwined. In this paper, the stress is put on the European (French) trauma interpretation, going back to the historical roots of the French concept of *effroi* – nearly impossible to translate but being conceptually a combination of psychological terror, frozen fright, shock and anguish – as described by Crocq (2001) and Lebigot (2001; 2002).

I will also discuss the rather mechanistic use of *Critical Incident Stress Management* (CISM) as a framework for trauma support activities due to the fact that many organizations (e.g. fire, rescue, police, hospitals, army) offered only short and superficial training to their personnel who started to apply – with or without the creation of a peer support structure – the common principles of CISM, but often without even asking whether or not the used early intervention strategies should be different according to the type of *critical incident* a stricken individual or group has been confronted with. The aim of this reflection is to provide a refreshing, divergent and non-standardized (European) view on trauma and its implications, instead of (again) elaborating on the predictable Northern American theories on trauma.

Personally, during an extensive trip to Australia in July and August 2002, providing repetitious workshops for peer support officers and trauma practitioners, I was most impressed by the work done by people working in the remote areas with a serious lack of means and in sometimes very difficult circumstances. I have been confronted with an extensive knowledge on crisis intervention, but mostly from a one-sided point of view and based on a mechanistic intervention flowchart or written policy. It appears to me that there is still a lot of confusion with respect to psychological early interventions after large-scale accidents or disasters. Most peers and clinicians seem to know concepts such as defusing,

psychological debriefing or *Critical Incident Stress Debriefing* (CISD) but lack both the historical and theoretical context of debriefing and the core of the debate on the efficacy of psychological debriefing which appears in most trauma conferences (e.g. from the *International Society for Traumatic Stress Studies*, the *European Society for Traumatic Stress Studies*, the *Australasian Society for Traumatic Stress Studies*) and divides the trauma field. I will elaborate on the point that this debriefing controversy is more like an artifact due to the lack of good sense and field experience of many trauma researchers, who seem to be surprised that it is simply impossible to avoid psychological trauma by organizing single session debriefings. Practitioners, working at the coalface, understand that immediate or early support, acute intervention and first psychological aid are very different depending on the type of victim one is working with. They would not debrief disaster victims, burn injury patients or rape victims, for example. These interventions will be discussed during this keynote presentation, using practical examples and recent publications as a starting point.

In the second part of this paper, the philosophy of the **CRASH-model** is discussed starting with the introduction of the *psychosocial matrix* in which the type of psychosocial crisis intervention is tailored to both the moment of intervention (during and immediately after the event, in the post-immediate stage and in the long term) and the type of victims one is dealing with. This angle of incident leads to a 3x3 matrix in which primary, secondary and tertiary prevention will be organized for primary, secondary and tertiary victims. The correct use of this matrix along with good sense and hands-on experience of the field clinician, respecting the basic principles of psychological first aid, should at least allow a rudimentary emotional triage leading to an adequate set of support activities, organized and carried out by peers, co-coordinated by peer support officers and supervised by mental health professionals. Finally, I will reflect on the moment on which there has to be a transition from peer support to professional aid (including the different stages of the trauma therapy).

Throughout this paper, I will provide a number of illustrations, both from my own practice as a trauma counselor and therapist, and from my field experience at grassroots level in a fire and emergency medical service. The aim never is to criticize existing models or to point the finger at certain people who tried to do their best in given situations, but to generate ideas and questions. This should allow us to elaborate on the appropriate guidelines for good practice in coping with human crash situations, which should enhance our way of understanding the noxious impact of traumatogenic events.

I hope that with this paper, I can contribute to an increase in quality in trauma intervention, so that both trauma practitioners and peers start to invest more energy in analyzing emotionally disturbing events and their impact, instead of just considering themselves and their practice as part of a policy based on a "*one size fits all*" – philosophy.

The acute reactions of victims of emotionally disturbing and potentially traumatic events

The effects of emotionally disturbing events: direct victims and significant others in search of the right expression of their emotions

In the following part I will try to put some clarity in the variety of effects of emotionally disturbing and potentially traumatic events. I would like to start with putting aside the widespread and overgeneralized concepts of *traumatic event* and *traumatic stress*, thus trying to reserve these terms for events which are really traumatizing and to watch over the restricted use of these terms. The traumatizing character of an emotionally disturbing event is always the result of a personal and subjective interpretation of this event by the individual struck by the event and not merely dependent on objective cues in the given event. Both in the literature and the spoken language there is a too widespread use of the term *trauma*: these days, everything seems to become a trauma, and the result then is that the stricken victims develop a subsequent trauma after surviving one ...

As such, the causality between events and effects is very often unclear.

As already stated in the introduction, this conceptual lack of clarity influences the practice of psychosocial crisis intervention and early intervention; the best illustration being the whole psychological debriefing controversy on whether or not the CISM-techniques are effective. While the techniques of psychological defusing and debriefing were originally developed to support professional (or professionally trained) caregivers – such as fire fighters, rescue workers and the personnel of police or emergency medical services – they have also been widely used (and researched upon) to support all kinds of victims of critical events. The problem being that the definition of a critical incident has always been very vague and that these CISM-techniques have rapidly conquered the whole trauma field, supposed to help the direct trauma victims, their significant others and all the other categories of stricken people involved. Both CISD – being an integral part of CISM – and the latter concept of early intervention became a container concept of various kinds of interventions for various kinds of victims. In the meanwhile, a whole disaster business has been developed, and professional caregivers or high-risk organizations (e.g. banks, petrochemical industry, rescue services, army, police) were urged or legally forced to "do something" to support their personnel exposed to various kinds of emotionally disturbing and potentially traumatizing events. For further in-depth discussion, I would like to orient the *multilanguage skilled reader* towards the extensive review and discussion work on psychological debriefing ***Les Débriefings Psychologiques en Question*** (De Soir & Vermeiren, 2002, Garant Uitgevers) – being the only book until now in which both the Anglo-Saxon and French/Latin interpretation of trauma and early intervention are developed.

In this paper, I qualify an event to be *emotionally disturbing*, when this event is abrupt and shocking, and involves disturbing feelings of anxiety and/or depression, followed by guilt and/or shame and/or sadness and/or rage. By its sudden impact, the event temporarily (and

more or less severely) disrupts the emotional and/or physical and/or cognitive equilibrium of the individual and their significant others, being struck by the secondary impacts of the event. Examples of this kind of events are the painful or sudden death of a friend or a relative or other important losses, or seeing severely injured or dead people . These events are shocking instead of directly traumatizing, if they do not lead to a subjective and/or objective confrontation with death in the mind of the stricken individuals or if they do not involve a fight to survive during which the stricken individual(s) is (are) confronted with a state of psychological terror, frozen fright and unspeakable experiences which are impossible to symbolize nor verbalize, or in which there was a complete disruption between *signified* and *signifier* (cf. Infra).

In Antwerp (Belgium) there has been a very sudden and severe hotel fire at New Year's Eve in which more than 10 people lost their lives and 150 people were injured (approx. 30 people were severely burned and remained in burn treatment centre for months). The surrounding people, living in the same neighborhood could also have been traumatized, but I tend to consider this event as emotionally disturbing (= temporarily disruptive impact) ngousrtelm??? for the involved fire fighters, police personnel and emergency medical services.

If the secondary or tertiary stricken victims (respectively significant others and involved professional caregivers or policemen) did not get personally involved during the aforementioned hotel fire or if they did not go through a mental process in which they identified themselves with the stricken victims, I do not consider this event to be potentially traumatizing for these categories of victims. Nevertheless, this process of identification with victims often appears through the on-scene contact with friends or relatives (or victims looking like friends or relatives) and especially children, always considered to be the ultimate victims. In other cases, such an event can also trigger[2] earlier trauma and thus lead (again) to post-traumatic sequelae, aggravating the already damaged mental structure of the stricken individual.

We would like to qualify an emotionally disturbing event as traumatic if this event lives up to the following criteria: (1) the event is sudden, abrupt and unexpected; (2) involves feelings of extreme powerlessness, horror and/or terror, disruption, anguish, and/or shock; (3) it implicates vehement emotions of anxiety and fear of death, due to; (4) the subjective

[2] The principle of *triggering* is one of the central problems in the working-through process of trauma victims. A psychological trauma is always characterized of a combination of several symptoms clusters, normally; 1) the original potentially traumatising event being a more or less direct contact with a life-threatening situation; 2) a cluster of symptoms in which the original event is re-experienced; 3) a cluster of symptoms in which the original event is denied or avoided; 4) a cluster of symptoms characterized by hyperarousal; and, 5) a social dysfunctioning of the stricken individual. When trauma victims are confronted by various stimuli which make them remember or think about the original traumatising event, these stimuli can TRIGGER the same reactions (event dissociative responses) as the original event itself. The human brain does not seem to make a difference between the orignal event and the re-experienced events with a *neuro-biological storm* as a consequence.

(feelings) or objective (real, direct) confrontation with death (i.e. the real or felt severe threat to one's physical and/or psychological integrity or the integrity of a significant other). What we consider to be central in this definition is the confrontation with death: the traumatic event confronts with a world which is unknown, a world of cruelty and horror, the world of death in which certainties, norms and values do not (seem to) exist anymore. The world of death which is the world of the unspoken horror – *le néant* (*the nothing*) as the French call it – in which everything becomes senseless, which is impossible to describe or to put into words, since human kind has no words or concepts to describe the real characteristics of death. This is the (under)world of the survivors of terrible (industrial) accidents, wars, fires, explosions, earthquakes and floods, macro- or micro social interpersonal terrorism; the world in which overwhelming forces annihilate human values, norms and/or life; the world in which impressive amounts of violence and power reduce human being to dust, eliminate each form of life, leave the survivors in the sometimes extremely short but impressive silence of emptiness, complete abandonment and loneliness, typical of the immediate aftermath of trauma, in which victims *awake* again and try to regain contact with *the spoken world of the living*.

In the above description, the illusionary state of predictability and security, respect for the human being (or life) and its norms and values, and/or its basic assumptions and certainties about the world we are living in, makes place for a situation characterized by deep physical and/or psychological injury, irreversible damage, humiliation and destruction beyond repair.

The overwhelming impact of this close encounter with death involves a typical situation of frozen fright and psychological terror which can be resumed in the French concept effroi de la mort as described by Lebigot (2001) and compared to the old Greek myth of Perseus by Crocq (2000; 2001). We will describe the deep emotional and psychological consequences of this close encounter with death in the next testimonies of trauma survivors of the Switel hotel fire – due to a backdraft in the ballroom of the Switel hotel during the New Year's Eve party in 1994/1995:

"I was playing trumpet on the podium when suddenly a fireball appeared in the rear of the ballroom. In just a few seconds the fireball rolled through the whole ballroom. The lights switched off, I heard loud sounds of explosions and people screaming and running in search of rescue. Then it seemed as if I heard nothing anymore. The only sensation I still remember is the enormous pulse I felt in my chest and the overwhelming black smoke which made it nearly impossible to breathe. The New Year's party had suddenly become like hell: smoke, screaming and the smell of burnt meat. Herds of people running to escape, which seemed impossible. These sensations would later be the gist of my nightmares. I don't know why, but I was running in the opposite direction of all the other people. I would never know why. The heat in the ballroom seemed to become unbearable. The only thing I wanted was to survive. And I kept saying to myself: "you will survive". On pure intuition, I ran through a door and arrived in a small kitchen in the rear of the ballroom. On hands and knees, I tried to find a way out. It seemed hopeless. Completely exhausted and in total desperation, I decided not to fight any longer against fate and prepared myself to die. But, sitting down against I wall, I

suddenly felt a last rush of energy which made me jump up and run, like being out of myself, hitting a wall, then a door, and ... there I stood, outside the building, in the pouring rain. At first, it seemed as if everything around me happened in slow motion, like a movie playing in front of my eyes. Then, reality and sounds came back to me and I realized that I had just escaped from death. In these first moments, I didn't realize that I was hurt, but after a few moments I started to feel the pain from my burn injuries. My hair was gone and my skin was hanging down from head and hands. It felt as if thousands of needles were penetrating my body. I was severely burned and started to feel more and more pain as time went by. At that moment, I did not realize that this would be the start of a recovering and rehabilitation period stealing several years of my life (...)"
– *De Soir, 1995 – Unpublished report on the Support Activities for the Switel Victims .*

Another Switel-survivor expressed her feelings in the following way:

"We were sitting at a very pleasant table and having a great time. Suddenly somebody shouted: "My God, look what a flame". That same flame would soon become a real fireball leaving no time and space for escape. I saw everything happen in just a few seconds and thought that it was an illusion. It just could not happen during such a fantastic evening. Not here. Not now. But it soon became very serious. Somebody grasped me by the arm and pulled me away from the table. From then on, I acted like an animal. I was running around in the black ballroom, without even knowing where I was running to. While running, I felt the desperate attempts of people lying on the floor trying to get up. I really did not fully realize that I was actually running on top of other people. After a while, I passed out, I lost consciousness. I was wearing a nylon dress that evening; a very short dress with open shoulders. That is why I was severely burned. When I came back to consciousness, I did not feel the pain. I did not realize that I was wounded. I remember that we were evacuated with military helicopters to a military hospital. I thought that I was in the middle of a war. Or that there had been a terrorist attack. Or that there had been an explosion in our hotel. The whole military context. It would have made sense. Once in the hospital, the nurses started to undress me and to cut my long hair. I was very angry because it had taken years to have my hair so long and the hairdressing had cost me a small fortune. But, they told me that I was severely burned and that they would have to put me to sleep for at least a couple of weeks. Three weeks later, I woke up with a tube in my throat, which would stay there for another two weeks. Impossible to express what you feel during such moments. A psychologist was sitting on my bed when I woke up. Immediately I wanted to know how my husband had survived the hotel fire, but the psychologist took my hand, looked me right in the eyes and said:"I'm sorry, both your mother and your husband died. My whole world collapsed. It would even become worse when I heard from the doctors that my left hand, ears and nose were burned to the third degree and that I would have to go through a lot of surgical operations. As a young, successful and beautiful woman I went to the Switel hotel to celebrate New Year's Eve, but several weeks later, I would wake up as a monster, mutilated for life.
- DE SOIR, 1995 - Unpublished report on the Support Activities for the Switel Victims.

Traumatic events like the above experiences of the survivors of the Switel hotel fire shake the very foundations of the human being: you cannot expect anybody to cope with this kind of events without suffering long-term psychological damage. Beside the feelings of extreme powerlessness and helplessness, and the overwhelming impression of deep penetration into one's own physical and psychological integrity, trauma survivors have to cope with the potentially ego-destructive emotions of permanent uncertainty, (survivor) guilt, anxiety, shame and loss of control. The more severe the physical injury, the longer the recovery and *working-through process* will last, and the more pessimistic we can be about the prognosis in the long term.

There is also the loss of *connectedness* with the surrounding significant others and the life environment in general. As Lebigot (2001) states, trauma survivors have seen the "*reality of death (**le réel de la mort**)*" and have lost the connection with the world of the living.

Without going into details, I would like to discuss the various aspects of the model I use to understand *the life-threat and emotional-shock-processing* in a chronological way. Looking back at the stories of the Switel survivors, this interpretation – which finds its inspiration in the animal world (cf. the way animals act in a predator-prey context) - will be easy to understand. It is important to think carefully about the different possibilities for immediate trauma-support during these different stages of traumatisation.

During the *traumatogenic* (potentially traumatic) event – in what we will call the *peritraumatic stage* – the direct victims act in a way, which is very significant for their survival and very comparable to what we see in animals while being threatened by a predator. In most trauma accounts we can easily recognize the following successive stages: 1) *immobility* – in nature this kind of immobility (cf. concepts as animal hypnosis, tonic immobility, frozen fright) sometimes means "survival" and "escape from death" – and *total inhibition*; apparently, this *freezing* happens in a state *apprehension of danger and attempt to find the right or most adequate survival response*); 2) *flight*, if there is enough time and space for escape, otherwise numbness and freezing might return, or even the opposite reaction pattern, panic and senseless activation; 3) *fight*, for as long as the fight to survive has a sense and offers a chance to survive in the stage of the traumatisation process; 4) *total submission* – the moment on which the stricken victims experience overwhelming power and violence, of the predator, the perpetrator, technology or simply nature; it seems as if they understand that fighting death has no more sense; it is at that moment that *dissociative behavior – alienation, depersonalization, anesthesia, analgesia, narrowing of attention, tunnel vision, out-of-body experiences, derealization, etc (cf. Infra)* - sets in, as if this would allow the victims to die without feeling pain or without even knowing consciously that they are on the way to die; and, if the danger or death threat disappears; 5) *recovery, recuperation* and *return of pain sensitivity, partial consciousness of what happened, widening of attention, e.a. behaviors that are typical of a return to reality.*. But this reality will never be the same again if one has seen '**death**' right into the eyes and if one has been confronted with the unknown, wordless and unspeakable world of the death. For a further analysis of this animal model of traumatisation

and an in-depth discussion of trauma and dissociation I would like to suggest the reading of the recent work of Van der Hart (2003), and Van der Hart, Nijenhuis & Steele (2001).

After the return from death, as described by the Switel-victims and the numerous trauma victims I had in therapy (and who lived through wars, motor vehicle accidents, rape, assault, fires, hostage taking, etc.), the fragmentary and wordless trauma sensations and experiences will have to be put into words in order to recover from the trauma. Although, the world will never become the same again. Trauma survivors will have to go back into the *trauma labyrinth*, in search for a way to **express** what they lived through, in search for a story and a meaning which could **reconnect** them to **the world of the living** – *the world of those who speak*, allowing them to **reframe their world**, **reconstruct** their basic assumptions and beliefs, and become one bio-psycho-social whole again.

In the first stage – which I will call the *acute (or immediate) trauma stage* - in the immediate aftermath of trauma, right after living through the potentially destructive impact, trauma survivors are confronted with a confusing mix of feelings of *disbelief, denial, relief and despair.* These moments of disbelief and denial - during which survivors long for rest, recuperation and safety –are quickly disturbed and/or alternated by sudden and intrusive recollections and re-experiences of the traumatogenic event, during which the victim acts as if the event itself was reoccurring and the death threat was present again. The brain does not seem to make a difference between the original event and these intrusive recollections. The trauma survivors keep asking the same questions: *What happened? How did this happen? Who else is injured (or dead)? Why did this happen (to me, or to us)? Why now? How will I (we) ever recover from this?* They are in a desperate need of information. Still shaking from the event, which has just struck them, feeling the sequelae of the hyper arousal they needed in order to survive, still a bit disoriented and heavily impressed by the close encounter with death. During this stage, trauma survivors have predominantly pure material and practical needs. They keep asking themselves: *How will I eat? Where will I sleep? Who will pay for this? How can I tell my relatives what has just happened to me? How do I get home? What about my old sick mother and how will she react? Will I ever find the energy and courage to go back to work after this. Etc.*

These are all problems which they need a quick solution for. Normally, this stage takes at least from a couple of hours to a few days during which the physical recuperation from the event might be more important than the psychological recovery which will take months or years.

This initial stage is followed by a *trauma working - through stage* – which I will call the *post-immediate* or *post-acute stage* - during which the trauma survivors will have to: 1) accept what has happened to them; 2) confront the negative emotions which are associated with this kind of events; 3) reach a life-equilibrium again, or try to return to normal life activities; 4) work through their experiences; 5) search a way to express and put into words their trauma experience; and, 6) find a meaning and a story, in order to integrate what has happened into

their personal life story. Numerous models are offered in the current trauma literature, but I think that most of them take more or less these different stages into account.

In my practice, I tend to take an intense *working - through stage* of three to four months into account. If possible, I try to allow trauma survivors to work through their trauma experiences in a collective way, so they can share their sensations and experiences with each other, in search of both an individual and a collective healing theory, which makes sense in their own minds. During the whole working through stage, I try to organize regular talk sessions and meetings, taking the **BICEPS[3] & FIRST[4] – principles** into account, both in the immediate and the post-immediate stage.

Most trauma survivors have an urgent need to really understand what has happened to them, how it has happened –this can be achieved a.o. through a detailed collective reconstruction of the event, considering all possible sources of information (television reports, newspaper articles, individual accounts and stories, etc.) – and they search for explication, understanding, compassion, recognition and meaning. The longer they stay alone with these needs, the longer they will be haunted by vivid, intrusive and/or weird re-experiences of the event, as if their minds look for understanding and completion of the event.

The intrusive recollections and re-experiences, during which the survivors return to the hyper aroused states coupled to the repetitious reminders of the original event –which are so typical of the *fight to survive* - alternated by moments (or periods) of denial and avoidance, potentially leading to social disruption and isolation, are the signature of what is described *post-traumatic stress disorder* (and acute stress disorder if the symptoms last between two days and four weeks, and dissociative symptoms are added to this) in *Diagnostic and Statistical Manual for Mental Disorders-IV* (*American Psychiatric Association*, 1994).

In this paper, I prefer the phenomenological side of trauma reactions and post-trauma sequelae instead of this typical Western (Northern-American) trauma concept which has been a good start for the renewed (essentially descriptive and statistical) study of trauma, but which is not sufficient to fully understand the different needs of trauma survivors.

Finally, I would like to mention the third stage on the time-axis of trauma processing, assimilation and accommodation – which I will call the *trauma fixation* or *chronification stage* - in which the trauma survivors get stuck, after several months of trying to cope with

[3] **BICEPS** (Sokol, 1986) is the acronym of *Brevity – Immediacy – Centrality – Expectancy – Proximity – Simplicity* - derived from the originally PIE (Proximity-Immediacy-Expectancy) – approach (Salmon, 1919).

[4] **FIRST** (De Soir, 2000) is the acronym of *Family Support* (mobilize the available natural help) – *Information* (True information about what happened) – *Rituals* (provide a framework for working through, mourning and grieving, after suffering human losses) – *Secondary Victimization* (avoid secondary victimization by institutions, authorities, etc.) & *Recognition* (and respect for what victims lived through). I described these principles as the **Big Five of Victimology** in earlier publications.

their experiences which has lead them to a stage in which their initial fears and complaints got even worse, more omnipresent and intense, forcing them to invest nearly their complete quantum of daily energy in avoiding the trauma-related symptoms or trying to cope with the vivid, threatening reexperience attacks shutting down their ability to adapt to normal life again.

For one reason or another (e.g. previous trauma, concurrent life experiences, personality characteristics, extremity of the event), the *salutogenic* (= *recovering, health promoting and rehabilitating*) physical, emotional and cognitive working-through of the trauma stopped and urges for professional trauma care and therapy.

The effects of emotionally disturbing events: fire fighters, paramedics, police and professional caregivers in the labyrinth of operational stress and trauma

Life-threatening events and large-scale accidents, calamities or disaster situations are not only potentially traumatic for the direct victims and their significant others but they can also traumatize the involved caregivers.

Everyone who starts out as a fire fighter or a paramedic may reasonably expect to be confronted sooner or later with emotionally distressing, shocking and potentially traumatic events. As in all high-risk and vocational professions, police personnel, money couriers, prison guards, emergency medical personnel, it is to be expected that these persons as well as their employers are well armed to deal with these impacts. In fact it is generally assumed that the consciousness of having to work with living, injured or dead victims of fire or serious accidents, natural disasters, violent crimes, hostage situations, shootings automatically leads to good psychological assimilation. This is absolutely untrue! I have led several studies (DE SOIR, 1995, 1996, 1997), based upon semi-structured clinical interviews with fire fighters and paramedics, that have shown that one in ten fire fighters or ambulance personnel have not come to grips with earlier traumatic experiences during an intervention. The short- and long-term effects of intense and sudden stress as well as slowly accumulating stress appear to have a very destructive effect on the rescuers' and caregivers' well-being. Without noticing it, they get hard hit medically, psychologically, socially and relationally. The world of firefighters and emergency medical personnel is a very particular and closed one to which an outsider is only reluctantly admitted. Many earlier efforts at mending the detrimental effects of post-traumatic stress disorder in firefighters have failed because the projects had little ecological validity or because the initiators approached the fire brigades or emergency medical services on a purely commercial basis. It is common knowledge that psychologists, trying to work with rescuers the way specialists do with their patients, are rather seen as a *spy instead of psy* ...

Firefighters, paramedics, emergency medical nurses, for example want to be heard, supported and helped by someone who is as alike to them as possible, who shares the same meanings and who lives in a similar world. The problem with many fire brigades is that as an

organization they suffer from the "*not-invented-by-engineers-syndrome*". The fact that the management of many large and semi-large fire brigades is in the hands of engineers, who have had a minimum of training in interpersonal relationships, human resources management and leadership, considerably complicates the introduction of the so-called soft values. As many staff members automatically become officers because they are engineers, they occupy themselves mainly with very technical issues. Therefore empathy with the purely human problems at grassroots level – where the average educational level is usually lower but the average number of emotionally destabilizing interventions higher – is not always easy.

Another fault line in many brigades is the one between young and old: rank or experience does not necessarily equal knowledge. Many young firefighters or ambulance personnel have recently obtained a number of degrees, which they eagerly use against older colleagues.

Emotionally disturbing or traumatic interventions can cause many physical or psychological complaints. Possible symptoms are withdrawal from social life, avoiding difficult situations, agitation and nervousness, heightened irritability or downright aggression (sometimes also within the family), backaches, headaches, bellyaches, chest pain, re-living the incidents in various forms (nightmares, flashbacks, etc), concentration problems and jumpiness. These are manifest symptoms of post-traumatic stress.

Many studies (Aptel et. al., 1993) clearly indicate that there is a marked cardiovascular pathology in fire fighters and paramedics. There are noticeably more victims in this group than among the average population. Fire fighters and paramedics appear to have more cardiovascular risk factors like cardiovascular hypertension, overweight and hypercholesterolemia. These medical risk factors are further enhanced by the virile and macho culture that usually reigns – albeit sometimes as a flimsy varnish – within fire brigades and emergency medical services.

Fire fighters and masculine emergency medical personnel usually consist of men who have been educated to believe that crying is a sign of weakness and/or for girls. They have become experts in stifling pain and hiding emotions with black humor and cynicism as only outlet. As a matter of fact it was this "outlet" of safety valve that permitted the fire fighters and paramedics to maintain a workable psychological distance from the victims. During their work, often in grueling circumstances, they have learned to concentrate on technical manipulations, and to suppress their emotions. This behavior has often been explained as insensitivity in the past, but the way in which fire fighters deal with their feelings appears to be very functional. Further on in this text a number of mechanisms (e.g.. black humor) are discussed which can help fire fighters to keep the necessary on-the-spot distance from their victims and to protect their own psychological integrity. Yet this John Wayne-like behavior, - cf. the so-called *John Wayne syndrome* (Mitchell, 1983; Becker, 1989) – may afterwards, when the excitement of the intervention is over, the armor is dropped and the fire fighters/paramedics awake from their functional tunnel vision, lead to a host of problems.

Prototypical male and extrovert behavior like smoking, drinking, loud bar-room discussions, taking up a lot of space in the group, telling (dirty) jokes and bragging about their deeds, seems to be reinforced by the specific profile of fire fighters and paramedics. In fact, psychologically speaking, they are all asking for a lot of attention …

The fireman is typically very *action- and goal-oriented*, dedicated, very motivated, ambitious and prepared to take calculated risks. The word "failure" is not in his dictionary. Deceased victims are equaled with failure (or coming too late). The often overwhelming powerlessness coupled with the inability to reflect on emotions turn many fire fighters into prospective burnout victims. Burnout was first described by Freudenberger (1987) as a specific form of depression found in all types of practitioners of social medicine. But in many elder fire fighters, emergency medical nurses and paramedics the symptoms of burnout can be traced one by one. Unwillingness or inability to talk about impressions and accumulating emotions inevitably leads to problems in the long run. Some leave emergency medicine or rescue work after a few years, startled and scarred by what they had to go through. Five years of service in fire fighting or emergency medicine – certainly for volunteers – seems to be a critical period. If they succeed in finding a balance with regard to traumatizing interventions and the time they invest in voluntary aid within those five years, the chances of remaining with the corps for a longer period increase. One of the first important hurdles is learning to deal with feeling of guilt and impotence.

Fire fighters have to learn to accept that they should not be too harsh on themselves because it is just impossible to cope with certain situations. This is reality! Others leave their jobs with a bitter feeling of failure after a long and strenuous grapple with a passion got-out-of hand for violence and loss. Many fire fighters and caregivers are in fact "trauma junkies" who do not like periods of inactivity. The escape valve appears to be yet again – not surprisingly – black humor, irony and cynicism. Within these fire fighters and caregivers we can imagine the physical, mental and emotional exhaustion as an ever-increasing chaos. The person concerned has to invest more and more energy in avoiding confrontation with his proper experiencing of past traumatic interventions. Alcohol and hyperactivity (often in occupations that increase social isolation) are well-used ways of realizing this escape. They spend a lot of time in the fire department, occupy themselves with odd jobs, play cards and drink together, go through past interventions in the pub, in their own language which is a mix of humor and bitter seriousness, and keep outsiders at a safe distance. In this way they share an important amount of time together. There is a strong mutual bond among fire fighters and paramedics of this kind. They remain, albeit from the sideline, even when retired, very involved with everything the corps organizes.

An enormous amount of data on how fire fighters, paramedics and emergency medical personnel manage stressful events in practice was generated by traveling through different European countries, Australia and New Zealand. General exercises (a minimum of three hours) on the management of emotionally disturbing (potentially traumatizing) interventions in the fire fighting and rescuing practice, or workshops and seminars, were held in more than two hundred fire brigades, ambulance services and emergency medical departments. They

consisted of three parts: an experience-oriented analysis of traumatic interventions, a practice-oriented discussion of real-life situations and a theoretic (psycho-educative) placement of the mechanisms and phenomena under discussion. These course-and-discussion activities demonstrated in the first place that fire fighters and crisis responders are *doers rather than thinkers and talkers*. But once they start talking …

During the scores of exercises with fire fighting and emergency medical personnel it became increasingly clear that it is essential to know the world of fire fighting through and through, or, ideally, to be part of it, to establish an efficient system of peer support.

Fire fighters and paramedics do not tolerate busybodies and does not want to feel a victim. In this environment it feels as if the counselor himself needs to have “a little cancer” to be able to deal with cancer. Counseling by a psychiatrist, psychologist, therapist, social worker or mental health worker in general from a viewpoint of power and degree-based knowledge does not work with firefighters and crisis responders. As stated before, it will be important to treat the fire fighting and emergency medical personnel as equals to obtain a mandate of equality and from there on to start a discussion about an emotionally disturbing (potentially traumatizing) intervention. This insight motivated me to create the European Association of Fire Psychologists, an association reuniting mental health professionals being both a trained and experienced firefighter and/or paramedic, and a clinical psychologist or psychiatrist.

Firefighters and paramedics realize that the borderline between success and failure, between saving and not being able to save, and therefore between being a hero or a “victim” is very thin indeed. First-line counseling will therefore have to be oriented towards creating an atmosphere of confidentiality and mutual understanding to be able to discuss everybody’s feelings about the intervention, followed by legitimizing and normalizing possible reactions. Using the time- honored phrase on them, that they are having “*normal reactions to an abnormal situation*” (but without using this phrase to stop them from further open expression of emotions) does them good.

The following emotions usually surface in the group: often overpowering impotence, a hated feeling of helplessness, a paralyzing grief about the human (and very recognizable) suffering of the victims, the intense guilt of not having been able to do more and the anger generated by all this. This is not what they joined the fire brigade or the ambulance service for, whatever the average person may think about it. Before treating the sequences of crisis psychological assistance and going into details of what is called the psychosocial matrix of crisis psychological assistance, it is important to consider the emotionally disturbing intervention as a difficult puzzle, from which the pieces have to be put back together again, to allow the stricken fire fighters and paramedics to fully understand the context in which the intervention took place. It is precisely this context that will determine the shape the group counseling is to take; the so-called *Supervised Peer Debriefing*, as is used in practice by the *European Fire-Fighter & Emergency Medical Stress Teams* and instructed by trainers belonging to the *European Association of Fire Psychologists*.

The traumatic intervention as a puzzle: the multidisciplinary character of Psychological shock assimilation after a large-scale intervention

As already said, the acute psychological experience of an emotionally disturbing , potentially traumatizing event is one of extreme powerlessness and loss of control. The victim loses his mouth as it were, as if his willpower is eliminated. At the same time the emotionally disturbing event causes a sudden and unexpected dislocation of the work and/or living conditions. Nothing will ever be the same. There is always the threat of death or serious damage to the psychological and physical integrity of the self or the other, involved in the traumatic event. Through accidents with children and/or acquaintances the illusion of invulnerability –"*accidents only happen to careless or unknown people*" – is seriously compromised and during and certainly after the event intense feelings of guilt, shame, fear, anger, etc occur.

The stricken caregiver can, in many instances, no longer maintain his image of the world. The basic assumptions and expectations about life are no longer valid. Everything, even in the practice of fire fighting, becomes dishonest, unjust, unpredictable and dangerous. Danger is behind every corner. Training no longer stands for controllability. Every intervention means "danger". Partners become afraid with every call-up. Etc, etc…

As a matter of fact, it becomes increasingly difficult for the modern fire fighters or paramedics to recognize and understand each other with the special highly technological and protective clothing they are wearing. Participation in any intervention becomes more anonymous.

Let us first examine the case of fire fighters working on the disaster or accident scene. For the fire fighter, it is even difficult to hear or recognize his colleagues. A modern fire fighter's gear protects him from mechanical impacts, deafening noise and radiation or contact heat. In reality this makes a fire fighter more or less sensorially deprived or *contact-dead*. Specifically older and more experienced fire fighters have problems with this situation. They used to "feel" their work, the fire, like a living thing. They were lead by warmth and hearing. Now the fire fighter is partly isolated. This does not only affect operational sensitivities, like "feeling" or "smelling" the risk for a back draft or correctly evaluating the chances for a flash-over during a fire. As a socially involved person, and as he learned in fire school, he has to rely strongly on direct contact with his colleagues and on teamwork. This is very difficult under these circumstances! Our hypothesis with regard to this problem is that this *nearly-work-alone-in-group* situation will increase the intervention stress considerably and affect the coping skills of fire fighters. As these facts make the fire fighters concerned very insecure. Specifically in the initial phase of the intervention if the fire fighter anticipates that the psychological burden of the intervention will be beyond his means, physical arousal is considerable. It will be in large part due to this arousal that the fire fighter, nurse, emergency doctor or policeman will only be able to recollect part of the events. The same heightened arousal will cause them to make more errors, to think incoherently and sometimes to make wrong decisions. While this physical arousal is necessary to become operational and alert,

too much of it during traumatic interventions may cause diminished attention and increased human failure. Nevertheless, fire fighters refuse to accept this because it is against their *code of honor*!

This *phenomenon of narrowed attention* – which could be compared to the victims' peritraumatic dissociative responses - is known in literature as the *Easterbrook-claim* (Easterbrook, 1959). According to the *Easterbrook-claim* the *physiological arousal of emotionally disturbing events leads to a narrowing of attention*. This narrowing of attention leads to a diminished capacity to take cues or information-elements from the environment in which an event takes place (Bruner, Matter & Papaner, 1955; Easterbrook, 1959; Eysenck, 1982; Mandler, 1975). It is therefore very difficult for the caregiver in question to come to a meaningful reconstruction of the whole event. It is like a giant puzzle from which he holds only a limited number of pieces. This makes it very difficult for him to come to a global image of the intervention. Yet this is indispensable to work through the event in a healthy way. If we couple the insight that information from emotionally disturbing or shocking events is usually badly encoded to the individual opinions after the facts, we have reached the very core of the problem: the fantasy around emotionally disturbing and/or traumatic events and the lack of true event-based information are often worse than reality. This goes for victims – for example MVA-victims – and even for their caregivers. This is one of the (theoretically based) reasons why direct trauma victims and their caregivers can mean a lot to each other when it comes to the working through- process which follows traumatic events.

But there is a problem: on the one hand scientists claim that the high emotional content of events can undermine the victims' memories (Kassin, Ellisworth & Smith, 1989; Yarmey & Jones, 1983), on the other hand, some researchers ascertain the opposite: the high emotional content of events makes the memories more exact and detailed (Christianson & Loftus, 1990a). For example the studies on *weapon focusing* (Cutler, Penrod & Martens, 1987; Kramer, Buckhout & Eugenio, 1990; Loftus, Loftus & Messo, 1987; Maas & Kohnken, 1989) have determined that certain stress-inducing objects such as fire-arms or knives used in crime may focus the attention of people and thus improve the accuracy of the memories of one detail, to the detriment of the other details in the given situation. Given these scientific insights, it seems as if direct victims' reactions are different from the reactions of their caregivers. Mutual contacts on these differences in reactions and behavior patterns can be very useful in both directions. It is also a very human way of counseling: caregivers meeting the victims they have (tried to) rescued, and both going back to the original emotionally distressing event, talking it over to support each other and search for meaning.

But there are also a lot of similarities. Indeed during psychological debriefings with caregivers or psychological first aid activities with victims, it often happens that the traumatic event in itself is described as something from a movie or a video-clip, unreal and riddled with signs of denial.

The injured baby, for example, is first seen as a doll in the backseat, the face of the acquaintance is only recognized much later once the intervention is over and the painful job is

done etc. Here we find again the intervention of the shock mechanism – sometimes referred to as tunnel vision, narrowing of attention – that must protect the victims or the caregiver from (emotional) collapse during the traumatic event. The human organism does not give in to "total loss" so easily.

The caregiver in question calls it "*working on automatic pilot*". In this way most of the actions during the first instances of a traumatic intervention happen "on automatic pilot", by instinct, trained, without speaking, to the point and … unreal. Children are often dolls under such conditions. Acquaintances "anonymous", injured or dead victims partly "dehumanized" through black humor to keep distance etc.

But the moment comes when the automatic pilot is promptly switched off. After the intervention we know this phenomenon as the emotional post-fact collapse. During long interventions one precise stimulus may suffice to stop the automatic pilot. The impression the victim resembles a relative, a teddy bear or child's doll, or other stimuli that pierce the harness or armor of the caregiver. And from that moment onwards he starts to function mainly as a vulnerable individual. And he cannot keep this up for long. Once the intense experience is over and the danger averted, the caregiver in question gets an insight – albeit partly – into what has really happened. From that moment on the *trauma-video-merry-go-round* begins. Because of the fragmented experience during the intervention every caregiver starts to reconsider – read "ruminate on" – the events wondering whether he and his colleagues should or could not have done more. The more holes there are in the recollection of the event, the longer the questioning process takes and the longer the mind ruminates on the experience.

This causes the person concerned to end up in the dialectics of a psychological trauma: continuous and intrusive re-experiencing, alternated by periods of negation/avoidance, with unchanged complaints of heightened arousal as a consequence. And if arousal, during the moments of intrusive re-experience, gets too high, integration of the traumatizing experience will not take place. The victim can become mired in either intrusive re experience or avoidance/denial, which leads to increasing social dysfunctioning. From this moment on, if the necessary DSM-criteria are met, Anglo-Saxon literature speaks of post-traumatic stress disorder.

It seems clear that sooner or later, caregivers and rescuers, fire fighters, paramedics and emergency medical nurses will definitely pay the emotional price of their work. This often occurs at the moment on which they are confronted with personal losses in their life, just as in the next example.

Peter had been involved in the rescue operations for the Switel fire from the first moment on. He had helped dozens of shocked and burnt victims e.g.. by sprinkling them with water till the evacuation from the disaster scene. Peter was a very experienced fire fighter of about fifty years of age. After the rescue operations, he was convinced of his good work. He did not feel the need to tell about his experiences nor to participate in the post-intervention debriefing

sessions. He did not want to dwell on this one big intervention and just wanted to let everything rest. A few years later he was confronted with a series of emotionally disturbing experiences in his own private life, all of them happening in just a three-month period:- he lost his mother and father, his wife was diagnosed with breast cancer and his oldest daughter attempted suicide. Peter was not able to cope with both the regular disturbing experiences from his fire practice, and his personal experiences. He asked for help - contacting me by e-mail, telling that he had started to have nightmares, and that in each nightmare he saw his own family sitting at a table in the Switel hotel fire and being suddenly burned by the fire. While his relatives were screaming for help he was looking for them with his full fire equipment and oxygen mask, completely lost and disoriented by the heat and the smoke.

This example clearly demonstrates that potentially traumatic events which have not been worked through nor integrated, and which have been blunted in the post-immediate stage, can accumulate in the psyche and cause trouble in a much later life stage and at a very unexpected moment.

All of this clearly demonstrates that psychological group debriefing with all the participants in a major intervention is a must, even if nobody should participate in psychosocial crisis intervention on a mandatory basis, so that the minds of the caregivers concerned can be put at rest as quickly as possible. In some cases, support activities include both the victims and their caregivers. Caregivers will already start on the site of the accident with their first psychological support for the dazed and shocked trauma victims. They will be supported themselves, on-scene, by their own well-trained peers. And in many cases, after the intervention, when suffering their own post-fact collapse, they will make contact again with the stricken victims (or the victims' families), invite them in the emergency department or fire brigade, to talk about their experiences and to work through the event together.

In the second part of this paper, I will shed light on the support activities aiming at *psychological first aid* and *emotional uncoupling sessions* (closely related to *psychological debriefing*) after introducing the core concepts of the CRASH-model for psychosocial crisis intervention. It will soon become clear that the type of support varies according to the type of (potentially traumatic) impact or victims.

The CRASH model: The Psychosocial Matrix of Crisis psychological Support for the Prevention, Care and Aftercare of Psychological Trauma

The psychosocial matrix of the CRASH-model for crisis psychological support is a 3 x 3 matrix in which we find respectively in the rows and the columns: 1) the *primary, secondary* and *tertiary victims,* belonging to one of these three categories depending on the type of potentially traumatizing impact they have suffered; and, 2) the *primary, secondary* and *tertiary prevention*, depending on the time of the trauma support. The concrete realization of the complete framework for psychosocial and crisis psychological support consists, on the one hand, of a kind of **emotional triage** to sort out the different kinds of victims, dividing

them in three different categories, and on the other hand, the selection of the right support technique, at the right moment and carried out by the right people, thus trying to realize an optimal fit between victims and the kind of support they get.

At first sight, the model might seem too simplistic, being too much a reduction of a very complex reality, but my field experience with this model, which has been implemented in several European countries and which has been applied to the management of numerous large-scale accidents and disasters, clearly demonstrates that this hands-on model at least leads to much better results than the one-size-fits-all approach of most critical incident stress management protocols.

The *primary victims* in this model are the directly stricken victims of the calamity or disaster, which means those who had to be rescued and/or medically saved, and those who have been directly confronted with the life-threatening potentially traumatic stimuli. The people who were celebrating New Year's Eve in the ballroom of the Switel hotel, which was destroyed by fire in some 30 sec, and who escaped, those who needed to be rescued and those who received medical treatment belong to the category of primary victims.

The *secondary victims* are the significant others, closely related to the primary victims or playing a significant role as bystanders in the first rescue attempts (before the emergency services arrive) or providing the first assistance to the primary victims and their families. The *social tissue* of significant others – relatives, family members, friends, colleagues, etc. – creates a victim's dendrite of people who can be considered to be secondary victims. A quick calculation in numbers leads to the insight that for each primary victim we have approximately 10 to 15 secondary victims.

The *tertiary victims* are the professionally involved people, caregivers or law order personnel – fire & rescue personnel, police, emergency medical services, etc. – who have been in direct contact with the primary and/or secondary victims.

With respect to the prevention, I also use the trifurcated subdivision, making the difference between primary, secondary and tertiary prevention.

While strictly spoken, *primary prevention* would have to be everything which is done to prevent the traumatogenic impact itself, we like to use a broader and maybe less conventional definition of primary prevention, taking the whole series of activities of trauma education and preparation, training, and the creation of intervention models and structures, even considering the on-scene support along with the peritraumatic first psychological support (cf. example of the tactics for victims' aid by fire fighters during the extrication and rescue of MVA-victims) to be a kind of primary trauma prevention. Thus, I personally consider all the support activities aiming at lowering the level of post traumatic sequelae, to be primary prevention.

If potentially traumatic or life-threatening events lead to hyper arousal in which the stricken victims have to fight for their lives and mobilize all possible animal-like survival

mechanisms, sometimes going into dissociative behavior, and – as the recent literature suggests – if these acute reactions are considered to be predictive of later chronic trauma, everything which can prevent these states of hyper arousal (i.e. every support lowering arousal in trauma victims, calming down, nurturing, etc.) and possibly avoid peritraumatic dissociation, keeping the victims on-scene grounded, is primary prevention of long-term psychological trauma. This is one of the hypotheses, which I try to confirm through my own research with MVA survivors.

Even if a precise delimitation of interventions in the time is very difficult, I suggest in this model that primary prevention ends on the moment on which: 1) the fire, rescue & emergency medical services are demobilized; and, 2) the primary and secondary victims, after the initial support and assistance offered on the scene of the accident or the disaster, are administered in the hospital or have rejoined their own social system or life environment.

The immediate support, both on the scene of the accident or in temporary support centers on the field, carried out by the caregivers of fire & rescue, or ambulance services, or even provided by volunteers from civil defense, Red Cross or others services, is also considered to be primary prevention. The *on-scene buddy aid* or *peer support – the help for colleagues and from colleagues* on the scene of the accident – and the initial emotional and physical recuperative talk sessions (sometimes described as defusing) are also considered to be *primary prevention of post-traumatic sequelae in tertiary victims.* As already stated, primary preventive support activities can be carried out by non-professional caregivers or peers.

The *secondary prevention,* in the post-immediate stage, essentially consists of: 1) a quick and adequate detection of post-traumatic sequelae and psychosocial problems; 2) a rapid and adequate intervention carried out by the right people on the right moment. Secondary prevention aims at the early detection of problematic responses or coping styles in victims, and at an adequate intervention tailored to the needs of the victims, in order to prevent the problems from exacerbating and becoming logic on the long term. I consider most *early intervention protocols* to be a kind of *secondary prevention (for tertiary victims).*
These secondary preventive support activities could, in some cases, be carried out by non-professional caregivers, as long as they work under permanent supervision of well-trained and professional mental health specialists.

Without wanting to go into full details, I am personally convinced that the currently known models of *critical incident stress debriefing* or *psychological debriefing* have been designed as a secondary prevention for tertiary victims, *which should not be used to support or debrief primary or secondary victims.* I think that the negative publicity on these intervention techniques is not due to these protocols but to the incorrect use of these techniques with people who should not be re-exposed to their trauma so shortly after the impact or after an insufficient physical, emotional and psychological recovery period.

The *tertiary prevention,* finally, aims at the full professional curative trauma care, which can become necessary for the different categories of victims after several months during which

these victims have been trying to cope with their experiences without any professional help. In this case, trauma victims can suffer from what is called in the DSM-IV (APA, 1994) Post-Traumatic Stress Disorder (PTSD), or even Complex PTSD.

Tertiary prevention can mean psychotherapeutical action from different perspectives, as there are (non-exhaustively): 1) (Brief) Cognitive-Behavioral Therapy; 2) Psychoanalytically Inspired Trauma Therapy; 3) (Brief) Eclectic Therapy; 4) *Sensori-Motor Trauma Therapy*; 5) Creative and/or Arts Therapy; 6) Experiential (and/or Existential) Trauma Therapy; and, 7) Integrative Trauma Therapy.

Primary prevention of psychological trauma in primary and secondary victims of traumatogenic events

As mentioned above, in most cases the acute (peritraumatic) stage for the victims of a traumatogenic event is just a matter of seconds or maximum a few hours. This has certainly been the case for most of the victims of the Switel hotel fire. In many cases the stricken victims need 24 to 48 hours to *wake up* again from their *trauma trance* (*dissociative state*) or *tunnel* (cf. the aforementioned dissociative responses in the different animal defense-like survival stages). When leaving these functional dissociative states (cf. narrowing of attention and functional tunnel experiences) the primary victims slowly start to realize what they went through or how lucky they were to survive. They are still afraid that the threat will return and in a repetitious way they will be aspirated back into their "traumatic tunnel" when the surrounding reality is still too cruel, extreme and/or overwhelming. The need to escape the surrounding reality is still present. The primary trauma victims will only very gradually return to reality and only when they perceive again a sense of safety, security and stability in the surrounding environment.

In my opinion, it is very important for the on-scene rescue workers and caregivers to know how to guide and support the primary victims on their way back to reality, trying to calm these victims down, helping to ground them during and immediately after the rescue operations, and assisting them in their first re-orientation attempts after the traumatic impact. Especially the trauma survivors who showed dissociative response need to be grounded on-site in order to prevent them from staying overwhelmed by the life-threatening, and potentially traumatic, stimuli. In this way, the on-scene support of rescue workers, firefighters and paramedics can be seen as real primary prevention with respect of chronification of psychological trauma.

The first signs of post-impact recovery appear when the stricken victims start again to search for information (about what happened) in the surrounding environment. This yearning for information in the immediate post-impact stage makes the primary victims very fragile and suggestible with respect to the first rumors about what happened.

The mental reconstruction of what really happened is very difficult for the involved victims since they all suffered more or less from a narrowing of their field of consciousness, focusing on peritraumatic details, which were relevant for their own survival or rescue. Lots of trauma-related, essentially preverbal and about speechless terror, have been registered but need much more elaboration before they can be transformed into senseful traumatic memories. Thus, each kind of support in that stage should aim at physical recovery and cooling down but not so much verbal expression since it is much too early for the narrative expression of what happened.

The on-scene support for primary, secondary and tertiary victims can be executed along the same principles. The first psychological help in the peritraumatic and immediate post-impact stage should absolutely focus on the reduction of the level of arousal and on the re-creation of basic security and safety around the traumatized victim. One could assume that the natural support a mother provides to a child in a state of anxiety, in trying to secure and to calm down, is the right kind of support a traumatized victim needs.

Primary prevention of psychological trauma in tertiary victims of traumatogenic events

Caregivers, belonging to fire, emergency medical and police services, often call their functioning in emotionally disturbing intervention, "*working on automatic pilot*". In this way most of the actions during the first instances of a traumatic intervention happen "on automatic pilot", by instinct, trained, without speaking, to the point and … unreal. As already described in the above text, children are often dolls under such conditions. Acquaintances "anonymous", injured or dead victims partly "dehumanized" through black humor to keep distance etc.

But the moment comes when the automatic pilot is promptly switched off. After the intervention we know this phenomenon as the emotional post-fact collapse. During long interventions one precise stimulus may suffice to stop the automatic pilot. The impression the victim resembles a relative, a teddy bear or child's doll, or other stimuli that pierce the harness or armor of the caregiver. And from that moment onwards he starts to function mainly as a vulnerable individual. And he cannot keep this up for long. Once the intense experience is over and the danger averted, the caregiver in question gets an insight – albeit partly – into what has really happened. From that moment on the *trauma-video-merry-go-round* begins. Because of the fragmented experience during the intervention every caregiver starts to reconsider – read "ruminate on" – the events wondering if he and his colleagues should or could not have done more. The more holes there are in the recollection of the event, the longer the questioning process takes and the longer the mind ruminates on the experience.

This causes the person concerned to end up in the dialectics of a psychological trauma: continuous, vivid and intrusive re-experience, alternated by periods of negation/avoidance, with unchanged complaints of heightened arousal as a consequence. And if arousal, during the moments of intrusive re-experience, gets too high, integration of the traumatizing experience will not take place. The victim can become mired in either intrusive re-experience

or avoidance/denial, which leads to increasing social dysfunctioning. From this moment on, if the necessary DSM-criteria are met, Anglo-Saxon literature speaks of post-traumatic stress disorder.

All of this clearly demonstrates that both immediate (straight after the intervention, before the caregivers are allowed to go back home) and post-immediate psychological support and debriefing with all the participants in a major intervention is a must, so that the minds of the caregivers concerned can be put at rest as quickly as possible. In some cases, support activities will have to include both the victims and their caregivers. Caregivers will already start on the site of the accident with their first psychological support for the dazed and shocked trauma victims. They will be supported themselves, on-scene, by their own well-trained peers. And in many cases, after the intervention, when suffering their own post-fact collapse, they will make contact again with the stricken victims (or the victims' families), invite them to the emergency department or fire brigade, to talk about their experiences and to work through the event together.

Crisis psychological first assistance and *debriefing* after traumatic interventions

Introduction on Emotional Uncoupling through Psychological Debriefing

The discussion of emotionally disturbing, shocking or traumatizing interventions, in group and according to procedure, will be called **Emotional Uncoupling (EU)** in what follows. **EU** is in fact an individual or group oriented intervention – based on the commonly known **Psychological Debriefing (PD)** process – in which the most important elements of a past emotionally disturbing experience are treated shortly after the events. Lately psychological debriefing – mostly based on the elementary protocol of *Critical Incident Stress Debriefing* (Mitchell, 1983) - has been generally advised as the best stress-management technique for high-risk professions like people providing aid in disasters, fire fighters, military personnel, police personnel, etc. (Dunning & Silva, 1980; Wagner, 1979; Raphael, 1986; Mitchell, 1981; Bergmann & Queen, 1986; Griffin, 1987; Jones, 1985). At this moment, a number of variants of the original Mitchell-protocol of psychological debriefing are widely used in psychological crisis intervention services. The problem is that in many cases outcome-expectations of psychological debriefing were too high and that more recently specialists have started arguing on the effects of psychological debriefing.

Firstly, we do not like the term "debriefing" because many of its users do not even fully understand the meaning of it – *can you debrief people who were not briefed in advance*? -, and, secondly, we think that the outcome criterion – i.e. the prevention of post-traumatic stress disorder (a concept in which we do not really believe) – may be the wrong one.

Without wanting to go back on the way in which psychological debriefing is applied in all its variants and without entering the further discussion of its utility, we can say that the guided

reconstruction of an emotionally disturbing and/or traumatic event appears to be of primary importance[5]. As the most important purpose of EU is the lessening of the (often intense) psychological suffering caused by an emotionally disturbing or traumatic event, it is clear that accurate memories of this event are of primary importance. This in itself poses a problem for large-scale interventions in which different teams of emergency medical personnel, fire fighters or even larger groups of caregivers took part. These individuals often have trouble realizing the larger context of the intervention in which they took part as a small but often important link. In the case of large-scale interventions such as traffic accidents, fires, cave-ins, explosions, i.e. disasters, it is clear that a correct reconstruction is impossible if only your proper corps is debriefed. It is impossible to get enough information about a multidisciplinary intervention and to measure to which extent it was successful, if you limit yourself to this.

The following practical example will illustrate this:

Following a very heavy traffic accident in which four people died, a fireman had to watch from a distance of only a few meters how his colleagues and the emergency medical personnel applied first aid and even attempted to reanimate a victim that was severely trapped in one of the cars. He was there ready to intervene at the slightest spark with the high-pressure lance. Yet, after the event he felt superfluous and useless. To him this was the worst thing that had ever happened. Having to watch how his colleagues struggled to try and save four people with fatal injuries. During the Emotional Uncoupling Procedure at which his colleagues, the emergency medical personnel, the police, the tow service and a few other caregivers were present, this fireman exploded in anger and afterwards started to cry. Until the moment that a nurse said that she would not have taken such risks – there was gas dripping from the car on the other side – if he had not been there, ready to intervene. The eye contact she had kept going with him during the intervention, and which he had read as a reproach, had on the contrary meant a lot to her. In fact she was grateful to this fireman for his presence. She also said something else which was very important, she told him that even while they were driving to the scene of the accident, she had heard over the intercom which fire brigade would assist them. It had given her a feeling of "if it's those guys, everything is going to be all right".

This intervention by people from the medical staff meant more to the fireman (and his colleagues) than any therapeutic intervention could have. In general, this kind of remarks by "outsiders" – witnesses, medical staff, police – all mean a lot to fire-fighters; it makes them feel useful in their job which sometimes appears to be very passive and frustrating. We always use this example when a colleague tells us he thinks that psychological debriefing – what we call Emotional Uncoupling in this text – should only take place in small groups and within the proper corps only.

[5] Why continue to argue on the outcome of Psychological Debriefing (PD) during every scientific congress when nearly all participants (trained and supervized caregivers' peers belonging to the Fire-Fighter & Medical Emergency Stress Teams already lead more than 200 Emotional Uncoupling Procedures) express themselves as "being glad to have participated", "grateful for the recognition and help provided", etc. One should simple not expect to "Prevent PTSD" in administrating PD to "trauma-victims" or "traumatized fire-fighters a.o." !

In some cases even the testimonies of witnesses or direct victims can be essential in this reconstruction process.

Further and equally important goals of Emotional Uncoupling are: ventilating tensions and frustrations (in many cases based upon the behavior of the press and “disaster tourists”), normalization, comprehension and legitimization of occurring reactions and feelings, creating a cognitive restructuration (we hope to replace negative cognitions by positive ones in the course of the discussion) creating a – almost mythical - bond among fellow caregivers and the identification of those participants who may run a high risk of problematic assimilation.

Goals of Procedures for Emotional Uncoupling

Emotional Uncoupling Procedures (EUP) appear to be an effective means of handling the direct and delayed post-fact emotional collapse in caregivers. One should not expect to eliminate or reduce sensationally the risk of long-term dysfunctioning after a traumatic crisis, but this kind of provided support, which has to take place at the right time and by the right people, will always be very much appreciated by the stricken caregivers and allow them to emotionally uncouple more easily from disturbing and/or traumatic interventions.

The *Big Five of Victimology*, as we call the five following factors, will be essential to assure a healthy coping with emotionally disturbing events; (1) providing correct and honest information; (2) mobilizing the available natural support systems; (3) assuring the right rituals; (4) avoiding secondary victimization (by avoiding bad reactions from outsiders); and, (5) providing the necessary recognition to the concerned caregivers.

From the above, it becomes clear that the main goals of emotional uncoupling procedures aim at helping the afflicted gain insight in the fact that both the initial on-scene coping mechanisms and their post-fact psychological suffering are the engine behind the assimilation of the trauma but that they can let this engine work for them instead of letting themselves be flattened by it.

Shock, sorrow, pain, fear, anger and other intense emotions are useful catalysts to come to a livable assimilation of the emotionally disturbing and/or traumatic event. Assimilation and not digestion because time and again the “*film of the entire scene*” can be started and a minute stimulus (very often a smell) is enough for the victim to relive the whole scene. Emotional uncoupling should not be used to confirm these feelings or to squash them, but to offer recognition for the feelings that surface during the session. They may be present as normal and legitimate reactions to an abnormal situation.

Table 1. Goals of Emotional Uncoupling Procedures

First: Together with everyone who took part in the event, establishing a correct reconstruction of what really happened by putting the pieces of the puzzle of each concerned person together.

Second: To give these people ample occasion to ventilate their emotional reactions concerning the events and to establish the intensity of these reactions.

Third: Offer recognition, support, information and comfort the stricken, by offering a detailed discussion, legitimization and normalization of the symptoms.

Fourth: Initiate, stimulate and catalyze the proper assimilation capacities in each participant in order to help them restore the feeling of safety and trust (and their feeling of predictability and control) in the environment in which they live and work.

Fifth: Take away the feeling of being uprooted by stressing and stimulating the togetherness and the connection among partners in adversity. Also stimulate the social coat care (if necessary also support the social environment of the victim).

Beside these main goals there are a number of smaller individually oriented goals. They comprise firstly the cognitive restructuring through a clear notion of the traumatic event and the reaction on it. The world of the victim can very well be turned upside down for a moment but does not have to remain like that forever. Furthermore the individual and group tensions have to be diminished. Also one has to see to it that the victims' feelings concerning the abnormality of emotionally disturbing and/or traumatic events are lessened by letting them share them with more or less like-minded people, by telling them that it are normal reactions to an abnormal situation. Also an attempt has to be made to increase the support, cohesion and solidarity of the group. The afflicted have to be prepared to symptoms or reactions that can occur later and, last but not least, those who may need help later on are identified.

Conclusions

With this paper, we tried to create the full picture of a framework – the psychosocial matrix of psychosocial crisis intervention – for immediate and post-immediate support after potentially traumatizing events. I took the illustrations for this paper both from my own field practice as a fire fighter and paramedic, and from my practice as a trauma counselor for large-scale accidents and disaster situations e.g.. the Switel hotel fire on New Year's Eve 1994-1995.

In my interpretation of psychological trauma, I tried to go beyond the superficial trauma descriptions found in the DSM-IV and for most of the time I mineralized the use of the

concept of *Post-Traumatic Stress Disorder (PTSD)* – still being "the reference" with respect to psychological trauma in most Anglo-Saxon countries. Still convinced that PTSD is not the absolute scientific truth when talking about early trauma intervention or support, I also wanted to provide some extra insights with respect to first psychological support and early trauma intervention instead of using the well-known "one-size-fits-all" or "all-cure" techniques of the widespread CISM-protocols for all kinds of trauma victims. An essential point in this discussion was the difference I made between the life-threatening events, on the one hand, and depressing or sad events and bereavement situations, on the other hand. Standardized models of how victims respond to extreme stress, and standardized interventions for early trauma support, never seem to make the difference between these various kinds of events and often allow a culturally blind and ideological use of intervention techniques, which – in my opinion – will not prevent people from developing chronified trauma and/or complicated grief. Pre-formatted and standardized techniques used in a too broad variety of situations, and the uncritical attitude towards these techniques mainly imported from the USA, sometimes implemented in organizations on commercial basis, aiming at the post-trauma support of burn injury patients, MVA survivors, raped women, hurricane victims, fire fighters, and military servicemen in or after war experience, without even making the difference between all the situations in which these victims were involved, made both scientists and clinicians doubt the effectiveness of their interventions.

In the meanwhile, trauma support and critical incident stress management seems to become an ideology: this ideology of acute trauma management conquered the whole world, often paralyzing the minds of lots of practitioners, till the scientific debate and controversy on the effectiveness of psychological debriefing and early intervention exploded less then a decade ago. But, the damage was already done.

I am convinced that we all have to do a part of our home-work again, having the moral strength and courage to fully and independently develop our own practice-based trauma concepts which we get from our experience at the coal-face, instead of undergoing the tyranny of concepts which are imposed by the high profile trauma doctors, bio-psychiatrists and neuroscientists, being heavily sponsored for their laboratory research, and making us prove that what the nurturing mother does for her scared child, is right ...

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